Patuxent River Survey

The first phase of the Patuxent River Underwater Cultural Resource Survey is now completed thanks to a grant from the Maryland Historical Trust. Co-sponsored by Nautical Archaeological Associates and CMM, the first phase consisted of a remote sensing survey employing sensitive electronic equipment designed to locate ferrous metal concentrations such as anchors, cannon, iron fittings, etc. An intensive documentary study of the river's history was also developed. This comprehensive maritime historical overview totals more than 400 pages. To date, over 100 shipwrecks, several 18th and 19th century port facilities and numerous prehistorical sites have been documented.

Phase Two, consisting of actual "hands on" survey will be concentrated on five selected sites, including a War of 1812 gun barge wreck and a c. 1680-1720 ferry landing.

SUMMER SKIPJACK CRUISES SUCCESSFUL

Again this year, cruises on the skipjack, Lady Katie, drew an enthusiastic response. The unique opportunity to sail aboard one of a diminishing species of great ships built on the Chesapeake for work on the Bay was grasped by 106 passengers from New York, New Jersey, Minnesota, Pennsylvania, Virginia - one called San Francisco home - as well as from Maryland. A tally shows 30% from Calvert County, 26% from elsewhere in Maryland and 44% from out of state.

This Museum-sponsored, 37-day summer sailing program included moonlight cruises as well as one-, two-and three-day trips out of Solomons to some of Maryland's most fascinating and historic ports, rivers and coves including Tighman Island, Smith Island, the Tred Avon, Oxford, Miles River, St. Michaels, the Choptank River, the Potomac, the Patuxent and St. Mary's City.

Captain Stanley Larrimore, master of the Lady Katie, and his first mate Darryl Larrimore (also a skipjack captain), steered courses by sail in winds to 35 knots and by push boat in dead calm, through warming sun and chilling rain, but "weather" among passengers and crew was always "fair and warmer." Museum volunteers did the cooking, served breakfast, lunch and snacks aboard. Dinner and a refreshing shower were usually ashore at some of Maryland's best shore restaurants, topped off by a stroll down picturesque bay town streets and by-ways with shopping for gifts and antiques. Sometimes, when fishing was good, dinner was prepared aboard with the Captain's special touch of seasoning and his magic touch on the crank of the home-made ice cream freezer produced from his trove in the hold.

The Lady Katie, clean and white in her best dress for summer cruising, soon will put on her work clothes, mount her "drudges," rollers and winches, take on her working crew of six and go oystering in the fall and winter. But dressed in her best, she'll be back, beautiful as ever, with Captain Larrimore next summer. You have all winter to remember the great cruise you took this summer. If you are not one of the lucky ones who signed aboard, you have all winter to think about the fun you'll have on the Lady Katie next summer. But don't wait too late to sign up. Get on the list now. It's a move you'll never regret; a cruise you'll never forget.

Charles Shinn
Restoration of a Fossil Bird, Pelagornis

A feasible restoration of the extinct Miocene false-toothed bird, Pelagornis, which inhabited what is today Chesapeake Bay, some 10 to 15 million years ago.

(Editor's Note: This feature article is by Dr. Jan Roth and Dr. Carol Roth, who researched and made a one-half scale model of this extinct bird, which is exhibited in CMM's newest exhibit, "Fossils of Calvert Cliffs." Pelagornis is the largest true bird known to have ever existed in the world. Miocene Pelagornis fossils are also known from California and France. The Roths' scale model is based on rare fossil remains from all these localities.)

The Miocene, 15 million years ago, was populated by large, marine, pelican-like birds called Pseudontornis or, more recently, Pelagornis. These large birds had an 18-24' wingspread and what appears to be teeth along the edge of the beak. They were undoubtedly a magnificent sight as they ascended on updrafts of warm air to glide along the coast near what is today Calvert Cliffs, Maryland, hunting for the small squid and fish upon which they fed. Fossils of these birds are rare, primarily because the fragile skulls and hollow bones were easily distorted or destroyed. As a result, it is difficult to reproduce their exact appearance. We do know that they had tooth-like structures as part of the bill [hence the name pseudo (false) — dont (tooth) — ornis (bird)], the upper wing bones were very long and hollow, and they had very short legs. The skull was high and rounded and the eyes were quite large. This information combined with the anatomy common to living birds in the family Pelicaniformes was used to reconstruct a half-size model of Pelagornis.

During the planning stages, it was decided that the usual means of reconstructing fossil animals, using fiberglass and plastic bodies, would not provide a lifelike appearance of a feathered bird. Therefore reconstruction of this half-scale model used techniques of taxidermy with some modifications.

The body of the bird would have to be reasonably lightweight since the bird would be suspended in a flying position. In addition, access to the body's interior was necessary so the wings could be adjusted after mounting. Therefore, an excelsior body was constructed using the pelican and the man-of-war birds as models. The artificial body was covered with high grade plaster of Paris embedded with monofilament line for added strength. The plaster body was then sectioned at the midpoint and the excelsior removed, leaving a strong hollow shell. Threaded rods (¼") for the neck and wings were then inserted into the shell and secured to prevent rotation. The wing rods were joined at the humeral-radial and radial-phalangeal junctions by threaded nuts; which allowed partial but independent rotation of the secondaries and primaries depending upon final flight attitude of the wings. The anterior and posterior halves of the body shell were joined together by threaded rods running between 2” x 2” wooden braces attached to the shell interior. The feet and head were modeled in clay, molded in silicon rubber, and cast in Lang's fast-curing Jet Acrylic. Glass eyes (pelican) were purchased commercially from Penn State Taxidermy, Hazleton, Pennsylvania.

Since the final reconstruction would be a bird 60 inches long with a 10-foot wingspread, requiring either hundreds of separately attached feathers or the skin of one very large bird conforming to the specifications, it was decided to create one large skin from several smaller waterbirds. Once acquired, these skins were degreased manually and cleaned in a series of water washes with a commercial detergent. Each skin was then divided into regions (neck, back, breast, tail, coverts, tertials, secondaries, and primaries) and resewn to similar parts from other skins until one skin was completed which conformed to the specifications of a large, long-winged, gliding bird with feathers designed for life in an oceanic environment. The skin was then placed on the hollow body shell, sewn, and glued into place. A leather pouch was attached to the lower jaw and neck while the head was being finished. The legs were attached to one another by a threaded rod running through the width of the body and were adjusted into position. Finally, all body areas not covered by feathers were colored with water-soluble acrylic paint, and the feathers were dyed with commercial dyes in a pattern which might be characteristic of a bird living in an environment with light skies and dark water. The final result can be viewed at the Calvert Marine Museum in a setting which needs only the pouding of the surf to transport the viewer to a day in the Miocene, 12-15 million years ago.

SHORT NOTES

CMM won first prize for best float in the Cavalier Days Parade, May 26. "Pepper" and Bill McGilvery fired up the c. 1900 boiler on the steam launch "Pocohantas" and sailed her (on a trailer) down the parade route.

The museum was most fortunate to host Tim Mihursky on an internship from Moravian College, Pa. Tim put out the last issue of the BUGEYE TIMES, did a new exhibit on Solomons now in the lobby and helped tremendously in the dark room.

Dave Bohaska, a graduate from UCLA with a masters in paleontology, has joined CMM staff as registrar. For the first time in CMM history, cataloging is preceding at a rate faster than acquisition.
Barkentine "GAZELA" Visits CMM

The three-masted cod fisherman GAZELA PRIMERO, an 1883 Portuguese-built barkentine belonging to the PMM (Philadelphia Maritime Museum) visited Solomons and CMM this past summer. This was a special occasion for Ralph Eshelman, director, and Bette Houseman, exhibits, who were fortunate enough to serve as crew on the GAZELA from Portland, Maine, to New Bedford, Mass. this past June as part of a blue water sailing experience program sponsored by CAMM (Congress of American Maritime Museums of which CMM is a member) and PMM. The crew of the GAZELA seemed to enjoy their visit to CMM and made several flattering remarks. The GAZELA is the last square-rigged ship of the Portuguese fishing fleet which yearly sailed to the Grand Banks.

CMM Successful in Grants

Over the past few months the museum has successfully been awarded three grants. The Institute of Museum Services, an agency of the Department of Health, Education, and Welfare, awarded the museum a $21,000 general operating grant. This grant is significant as only 404 were awarded out of 1,714 applications from museums all over the country, many with professional grantsmen on their staff. The funds from this grant will be used to upgrade the staff and collections in anticipation of a museum accreditation review in the near future.

The museum also received nearly $10,000 from the Maryland Historical Trust for Phase I of the Patuxent River Underwater Archaeological Survey reported on elsewhere in this issue. Requests for Phase II of this survey have been filed.

From the Citizen’s Program for the Chesapeake Bay a mini-grant of $2,000 was awarded for youth-oriented, estuarine field excursions aboard the museum’s boat WILLIAM B. TENNISON.

FALL CALENDAR AND PROGRAM SCHEDULE

All programs begin at the Museum at 7:45 p.m. unless otherwise noted. All programs are free to members and $1.00 to non-members unless otherwise noted. For additional information call D. Ordwein, 326-4162.

SEPTEMBER
22 FOSSILS OF CALVERT CLIFFS. Formal dedication. Refreshments will be served.

OCTOBER
6 & 7 PATUXENT RIVER APPRECIATION DAYS. Second annual celebration of the Patuxent River. Hours 10 to 6 Saturday, 11 to 6 Sunday. No admission. Free parking.

(Cont’d on Page 4)
SUMMER CALENDAR
(Cont'd from Page 3)

13 ESTUARINE STUDY FIELD TRIP aboard the Tennison. Open to 12 persons age 12 and up. Advanced registration required. Trip departs 9:30 a.m.

26 ENVIRONMENTAL PROGRAMS AT CALVERT CLIFFS. A slide lecture on aquatic environmental programs carried on at the Nuclear Power Plant. The speaker is Dr. E. I. Bauereis, Senior Biologist for Baltimore Gas and Electric.

NOVEMBER

1 ENERGY SOURCES. An illustrated lecture on harnessing wave action by Mr. Michael McCormick, Professor, Naval Systems Engineering Department, U.S. Naval Academy.

11 SEA CHANTEY SINGERS. An evening of music that speaks of the sea and those who have lived and worked on it. The Georgetown Chanetey Men will give the concert.

27 CHESAPEAKE BAY GRASSES. Submerged aquatic vegetation in our area has diminished markedly. This lecture will discuss the importance of such grasses and the research currently being done by university scientists. Michael Fincham, a science writer, editor of Sea Grant Materials, will be the lecturer.

DECEMBER

4 THE INFLUENCE OF SEA POWER. Mr. Paolo Coletta, Professor, History Department, U.S. Naval Academy, will discuss Naval and Commercial Shipping with the interest on 19th century history.

18 RAISING SEED OYSTERS. Dr. George Krantz of the Horn Point Environmental Laboratory will discuss biological, technical and economic problems of supplementing the natural reproduction of oysters in the Bay. Samples will be provided for your taste buds.

ACQUISITIONS

ZORA WHITE: fossil tapir tooth.
GILBERT KLINGEL: “aquascope,” underwater research vessel used by National Geographic Society to take first underwater color photographs of Bay.
FRANCIS BROWN: photographs and negatives.
KENNETH BROOKS, JR.: 1920-30 photos of Solomons area.
JEFF O’NEILL: several rare Miocene fossils including rhinoceros tooth and brittle starfish.
RICK TOTH: Miocene starfish fossils.
MARLAND KELLEY: patent tong winder.

INTRA-MUSEUM LOANS

PATUXENT PARK, Croom, Md.: three-log canoe from CMM collection.
SYZYGY PRODUCTIONS, LTD.: scene props for filming “Here There Be Dragons,” The Voyage of the Mayflower.
CHESAPEAKE BEACH RAILWAY MUSEUM: the nearly complete collection of business records of the Chesapeake Beach Railway and the clock from the Old North Beach School; an exchange from CMM.

SPECIAL RECOGNITION

MR. ABE GOLDSTEIN of Prince Frederick for several exhibit cases and loads of lumber.
DR. AND MRS. TED COMPTON for assistance in grant applications.

RESERVATION FORM

☐ Estuarine Study Field Trip – October 13.
☐ Canoe Trip: $10.50 members; $12.50 non-members November 17.

$ __________ Total Enclosed __________________________ Make checks payable to:
Name __________________________ PROGRAMS
Address __________________________ Calvert Marine Museum
                      Box 97 – Solomons, Md.
Phone __________________________ 20688